

NEW PERUVIAN MAMMALS

BY WILFRED H. OSGOOD.

The mammals described below are those obviously new from a collection made during the past year in northern Peru by Mr. M. P. Anderson and myself. Doubtless there are further novelties, but since it is the first considerable collection of middle Andean mammals brought to the United States, this is not readily ascertained. A complete report on the entire collection is in preparation but its publication is necessarily delayed. Knowledge of South American mammals as yet is so imperfect that no general monographic work has been done and in many groups there is much confusion. Year by year, however, the task of settling individual problems becomes simpler and it is to be hoped that the day is not very remote when some of the important general questions of distribution and relationship may be studied with accurate and sufficient data.

Peramys peruvianus sp. nov.

Type from Moyobamba. Peru. No. 19362 Field Museum of Natural History. Male adult. Collected July 21, 1912, by W. H. Osgood and M. P. Anderson.

Characters. Size small; coloration dark and rich; hair short and close, 4-5 mm. long on back; head, shoulders, and back Vandyke brown, darkening to blackish seal brown on rump; sides of belly and entire inguinal region drabbish or broccoli brown; median throat, chest, and anterior part of abdomen light buff to bases of hairs; chin brownish drab; arms, legs, and feet slightly darker than body.

Skull small, light, and devoid of angularity; interorbital region smoothly rounded with only a slight postorbital protuberance; nasals moderately expanded posteriorly, ending far back of premaxillæ; last upper molar greatly compressed.

Measurements. Type: Total length 173; head and body 118; tail vertebrae 55; hind foot 16. Skull of type (lacking posterior half of braincase): Zygomatic breadth 15.3; nasals 14.5 x 3.8; interorbital constriction 5.7; palate 15.2; front of canine to back of M⁴ 12.4. Skull

of female topotype: Greatest length 26.9; basilar length 24.5; zygomatic breadth 14; nasals 11 x 3.2; interorbital constriction 5.6; palate 13.9; front of canine to back of M⁴ 11.1.

Remarks. This species appears to have no very close relative unless it be *Peramys adustus* of eastern Colombia which, although about the same size, is evidently much paler in color and lacks the extensive buffy pectoral area. Both the type and the one topotype obtained are imperfect, having been injured by ants while lying dead in the traps, the latter so badly that its mutilated body was preserved in alcohol.

Marmosa madescens sp. nov.

Type from Tambo Ventija, 10 miles east of Molinopampa, Peru. Altitude about 9000 ft. No. 19689 Field Museum of Natural History. Adolescent male. Collected June 15, 1912, by W. H. Osgood and M. P. Anderson.

Characters. A medium-sized species of very dark color and unbeaded skull, probably allied to *M. incana* and *M. fuscata*. Upper parts rich dark brown; back Prout's brown shading to Vandyke brown on sides; frontal and interorbital region slightly paler brown; eye ring black, its anterior extension brownish; hairs of cheeks, chin, throat, breast, midventral and inguinal region self-colored creamy buff; hairs of sides of throat and belly and inner sides of arms and thighs creamy apically and broadly slaty basally; midventral area of self-colored hairs occupying about one-fifth the transverse extent of the abdomen; tail thickly clothed with fine short hairs except the distinct scaly prehensory pad; upper side of tail dusky brownish except a short variable white tip; under side of tail irregularly whitish for distal two-thirds of its length, the remainder sooty; front of arms and legs brown; feet and toes whitish at least laterally.

Skull rather elongate; supraorbital and temporal ridges only faintly indicated; nasals slender and slightly expanded posteriorly.

Measurements. Type: Total length 259; head and body 120; tail 139; hind foot 19. Skull of type: Greatest length 32.2; basal length 30.9; zygomatic breadth 15.7; least interorbital breadth 6.5; nasals 14.7 x 3.5; palate length from gnathion 17.9; front of canine to back of M⁴ 13.5; combined length of Ms¹⁻³ 6.

Remarks. Although comparison of actual specimens has not been possible, it is evident that this species has its nearest relationship with *M. incana* and *M. fuscata*. It differs from *fuscata* at least in the color of its underparts and doubtless other characters will be found upon comparison of specimens.

Marmosa musicola sp. nov.

Type from Moyobamba, Peru. No. 19354 Field Museum of Natural History. Adult female. Collected July 30, 1912, by W. H. Osgood and M. P. Anderson.

Characters. Allied to *Marmosa quichua* but larger, with a longer tail; blackish eye ring produced forward nearly or quite to end of nose; skull with well-developed angular postorbital processes. General color of upper parts between cinnamon and russet, finely punctulated with dusky; frontal and interorbital region very slightly paler than back; eye ring sharply defined black extending forward to base of whiskers or to end of nose; under parts rich creamy buff or ochraceous buff, the hairs self-colored on the chin, middle of throat, breast, and a narrow midventral line — elsewhere with slaty bases; outer side of hind leg dusky brownish to tarsal joint; hind feet buffy whitish on inner half, pale hoary brownish on outer half; front of forelegs and at least middle of fore feet brownish; tail brownish, faintly and irregularly paler on under side.

Skull rather short, broad, and deep; braincase large; supraorbital ridges beaded and forming a slight shelf, produced into distinct angular postorbital processes; temporal ridges slightly developed; nasals moderately but rather abruptly expanded.

Measurements. Average of four adults from the type locality: Total length 288 (271–306); head and body 115 (102–129); tail vertebrae 173 (169–175); hind foot 18.4 (17–20). Skull of type: Greatest length 33.1; basal length 31.9; zygomatic breadth 18.3; breadth across postorbital processes 7.4; least interorbital breadth 5.7; nasals 14×4.4 ; palate length from gnathion 18.1; front of canine to back of M^4 12.3; combined length Ms^{1-3} 5.4.

Remarks. This species seems to have no nearer relative than *M. quichua*, with which it agrees in its general coloration, but it is distinguished by its larger size, its lack of a white tip to the tail, and especially by its angular postorbital processes.

Metachirus andersoni sp. nov.

Type from Yurimaguas, Peru. No. 19655 Field Museum of Natural History. Adult male. Collected Sept. 11, 1912, by M. P. Anderson.

Characters. A richly colored species of the *opossum* group. Median upper parts from nose to end of hairy part of tail rich brownish black; shoulders and sides of body and rump grizzled and slightly tinged with buffy; front of forelegs and thighs buffy gray; fore and hind feet brownish

black; toes white; postocular spots buffy white sharply contrasted with surrounding black; under parts wholly ochraceous buff, the hairs mostly self-colored except on the sides of the neck and sides of belly where they have pale drab bases; dark and light areas of scaly part of tail about evenly divided.

Skull large and very elongate; nasals pointed behind and extending far beyond the posterior border of the lacrymal (in type, nearly to plane of postorbital processes); jugal not greatly expanded.

Measurements. Type and adult female paratype, respectively: Total length 572, 553; head and body 284, 275; tail 288, 278; hind foot 40, 35. Skull of type: Greatest length 78.8; zygomatic breadth 37.9; interorbital constriction 9.3; width across postorbital processes 13.5; nasals 39.6 x 10; breadth of braincase 21.3; palate length from gnathion 45.3; front of canine to back of M^4 31.2; M^1 to M^3 11.6.

Remarks. This handsome species is evidently widely different in color from any previously described. Doubtless its nearest relative is *M. opossum* of Guiana and Brazil from which it is easily distinguishable by its broad and sharply defined black dorsal stripe and its richly buffy under parts.

***Metachirus canus* sp. nov.**

Type from Moyobamba, Peru. No. 19347 Field Museum of Natural History. Male, young adult. Collected Aug. 4, 1912, by W. H. Osgood and M. P. Anderson.

Characters. A pale gray species allied to *M. grisescens* of west central Colombia, but differing in having a bicolor tail, more blackish upper parts and paler under parts. Upper parts uniform peppery gray, the hairs tipped with silvery and dusky brownish; head dark brown more or less sprinkled with silvery; under parts pale cream buff, stronger anteriorly, becoming more whitish posteriorly; gray of sides encroaching largely on belly; feet pale drab proximally, white distally; toes white; slightly less than distal half of tail white, remainder blackish.

Skull of medium size; nasals decidedly shorter than in *M. grisescens* and abruptly terminated after their moderate posterior expansion; premaxillæ short, scarcely exceeding posterior plane of canine; palate highly fenestrate posteriorly; maxillary end of jugal broad and deep, its lower border practically parallel with the alveolar boundary of the maxillary; occipital condyle decidedly projected beyond inion; last upper molar trilobate in form, not so regularly triangular as in related species.

Measurements. Type: Total length 568; head and body 275; tail

293; hind foot 45. Skull of type: Basal length 67.5; occipito-nasal length 66.5; interorbital constriction 18.9; nasals 28.8×7.2 ; palate length from gnathion 40.2; front of canine to back of M^4 20.3; M^1 to M^3 11.6.

Remarks. *M. canus* is markedly different from all the known forms of the *opossum* series except *M. grisescens* from which it differs in having the usual white-tipped tail and in having all its paler markings less suffused with fulvous. It is perhaps the palest member of the genus, whereas *M. andersoni*, found at no great distance, is the most richly colored.

***Oryzomys polius* sp. nov.**

Type from Tambo Carrizal, mountains east of Balsas, Peru. Altitude about 5000 ft. No. 19765 Field Museum of Natural History. Adult female. Collected May 18, 1912, by W. H. Osgood and M. P. Anderson.

Characters. A large, long-tailed species, of a grayish type of coloration strongly suggesting various United States species of *Neotoma*. Upper parts smoke gray tinged with fawn mesially and mixed uniformly with dusky; under parts grayish white, the hairs with slaty bases except on the chin; eyelids blackish; ears thinly haired, blackish; hands and feet, with carpal and tarsal joints, white; tail very finely annulated and clothed with fine short hairs, white below and on sides, dusky above.

Skull rather elongate; rostrum broad and heavy but relatively long; nasals long but broad; supraorbital edges elevated and trenchant, continuous with parietal ridges to occipito-squamosal suture; palate with deep lateral channels running from the anterior foramina to the posterior lateral pits which are exceptionally large and deep; anterior palatine foramina very large, extending posteriorly nearly to plane of middle of first molar; mesopterygoid fossa obtusely pointed anteriorly, extending slightly beyond the posterior plane of the last molar; molar teeth of moderate size and normal pattern.

Measurements. Very old female: Total length 352; head and body 164; tail 188; hind foot 30. Type: Total length 337; head and body 157; tail 180; hind foot 30. Skull of type and very old female, respectively: Greatest length 34.7, 37; basilar length 27.1, 29.3; zygomatic width 17.8, 19.3; least interorbital width 5.2, 5.8; nasals 14.2×4.2 , 15.1×4.7 ; interparietal 10.2×3.4 , 9.8×4.3 ; anterior palatine foramina 8.3×3 , 9×3.7 ; postpalatal length 12.5, 13.5; upper toothrow 5.6, 5.4.

Remarks. This species is not closely related to any with which I have been able to compare it, and of the numerous descriptions of species in this genus I do not find any which seem to indicate that it has received

a name. For convenience it might be compared to *O. xanthæolus* which is only slightly smaller but that species has the usual more or less fulvous coloration and the skull has a different palatal and interpterygoid region, a shorter rostrum, and various minor characters not shown by the present species. *O. baroni* appears to be a slightly differentiated subspecies of *xanthæolus*.

***Cavia atahualpæ* sp. nov.**

Type from Cajamarca, Peru. Alt. 9100 ft. No. 19480 Field Museum of Natural History. Female adult. Collected April 14, 1912, by W. H. Osgood and M. P. Anderson.

Characters. Size large; color dark; allied to *C. cutleri* but much darker; general color of upper parts evenly grizzled cinnamon and blackish, the bases of the hairs broadly dark drab (15–20 mm.) followed by two or more annulations of cinnamon and blackish; numerous very fine and wholly blackish hairs more or less exserted especially on the rump where they are 20–50 mm. long; sides and lateral under parts only slightly paler than back; midventral region wood brown or pale cinnamon to ochraceous buff somewhat broken by drab basal color on belly, clearer and more dominant in pectoral and inguinal regions; throat mixed cinnamon and blackish scarcely different from upper parts; chin and submaxillary region buffy; fore and hind feet grizzled pale drab; ears thinly haired, blackish, not contrasted with surrounding parts; no definite eye ring.

Skull similar to that of *C. cutleri*, but audital bullæ somewhat larger.

Measurements. Type (♀): Total length 275; hind foot 48. Topotype (♂): Total length 243; hind foot 46. Skull of type: Greatest length 60; basilar length 48.3; zygomatic breadth 33; nasals 19.8 x 8.6; diastema 16.2; palatal foramina 6; length of toothrow (alveoli) 14.6.

Remarks. As represented by a specimen from Arequipa, *Cavia cutleri* is decidedly paler than the present species. This difference exceeds possible individual variation. Four specimens were secured at Cajamarca and all are uniformly dark colored, although one immature example shows somewhat more buffy or ochraceous on the under parts than the adults. Various cranial differences are noticeable but the only one which is sufficiently marked to give promise of being more than an individual peculiarity is that of the size of the audital bullæ.

***Akodon mollis orophilus* subsp. nov.**

Type from six miles west of Leimabamba, Peru (in mountains near

headwaters of Utcubamba River). No. 19724 Field Museum of Natural History. Adult male. Collected May 26, 1912, by W. H. Osgood and M. P. Anderson.

Characters. Similar in color and character of pelage to *Akodon mollis allorum*, but averaging slightly larger and more fulvous and having marked cranial characters. Skull compressed and attenuate anteriorly; nasals slender and elongate; zygomatic plate short, having its anterior edge convex and receding from the base; braincase broader and more smoothly rounded than in *mollis* and *allorum*; temporal ridges practically obliterated.

Measurements. Type: Total length 192; head and body 107; tail 85; hind foot 23. Skull: Greatest length 26.8; basal length 24.5; zygomatic breadth 13.3; interorbital breadth 4.9; nasals 10.8 x 2.8; palatine foramina 5.8; diastema 6.8; upper molar series 4.4.

Remarks. From examination of an extensive series of specimens representing localities from the Pacific coast to the lower slopes of the eastern Andes of northern Peru, it is evident that *Akodon mollis* is divisible into four easily recognized forms. The division is primarily by cranial characters and secondarily by color. Typical *mollis* of the coast region and *allorum* of the western Andes differ somewhat in color and pelage but have the same type of skull as contrasted with *orophilus* of the central Andes and *orientalis* of the upper montana region, these latter being likewise differentiated by color and dimensions. Ecuadorean specimens of *allorum* are not at hand, but the statement in the original description¹ that they are cranially "as in true *mollis*" is taken as sufficient evidence that they do not differ from specimens from the western Andes of Peru (Cajamarca, Otuzco, etc.).

***Akodon mollis orientalis* subsp. nov.**

Type from Poco Tambo, between Chachapoyas and Rioja, Peru. Altitude about 6000 ft. No. 19855 Field Museum of Natural History. Adult female. Collected June 29, 1912, by W. H. Osgood and M. P. Anderson.

Characters. Similar in cranial characters to *A. m. orophilus* but larger, longer-tailed, and much darker in color. Upper parts deep mummy brown in general appearance, the hairs annulated with dark umber and tipped with blackish; under parts heavily washed with tawny russet; tail and feet entirely blackish. Skull of the same general form and having the slender rostrum and short receding zygomatic plate as in *orophilus*, but braincase slightly broader and more ample.

¹ Thomas, Ann. & Mag. Nat. Hist., (8), xi, p. 404, April, 1913.

Measurements. Type: Total length 201; head and body 116; tail 85; hind foot 24. Skull: Zygomatic breadth 13.8; breadth of braincase 13; interorbital breadth 5.5; nasals 10.6 x 3.4; palatine foramina 5.7; diastema 7; upper molar series 4.6.

Remarks. This form is readily distinguished by its wholly black tail and feet, the other forms of *A. mollis* having grayish feet and a bicolored tail. These characters are seen in their incipency in specimens from localities immediately west of Poco Tambo and evidence of the gradation from one form to the other is practically complete. At Poco Tambo the conditions are those of typical montagna with dense humid forests, but relatively cool climate.